

Chapter 7 Similarity
Lesson 7.1: Using Proportions
Classwork

Name _____
Date _____
Period _____

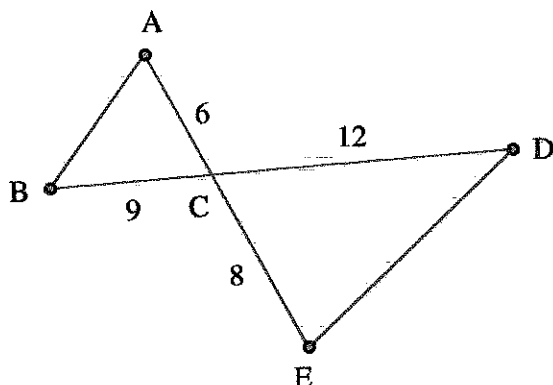
Express the following as a ratio in simplest terms.

1. $\frac{6}{24}$

2. $\frac{9}{12}$

3. $\frac{9}{51}$

4. $\frac{1000}{2500}$



For questions 5 - 10 refer to the above diagram.

5. $\frac{AC}{CE}$

6. $\frac{CE}{AE}$

7. $\frac{AC}{AE}$

8. $\frac{CD}{BC}$

9. $\frac{BD}{CD}$

10. $\frac{BD}{AE}$

Solve the following proportions.

11. $\frac{16}{x} = \frac{4}{3}$

12. $\frac{7x}{5} = \frac{42}{3}$

13. $\frac{5}{8} = \frac{3x}{4}$

14. $\frac{x+2}{4} = \frac{9}{2}$

15. $\frac{x}{3} = \frac{x+2}{5}$

16. $\frac{x-5}{x} = \frac{3}{4}$

17. $\frac{x-1}{x+3} = \frac{3}{5}$

18. $\frac{2x-5}{4} = \frac{4x-7}{4}$

19. $\frac{10-x}{5} = \frac{7-x}{2}$

20. $\frac{12}{4x+9} = \frac{18}{5x-4}$



Why Didn't Krok Like to Go Sailing With the Baseball Uniform Designer?



Simplify each expression below and find your answer in the corresponding answer column. Write the letter of the exercise in the box that contains the number of the answer.

(L) $\sqrt{8}$	(S) $5\sqrt{18}$
(I) $\sqrt{45}$	(U) $3\sqrt{28}$
(A) $\sqrt{50}$	(A) $2\sqrt{1000}$
(T) $\sqrt{12}$	(P) $\sqrt{1,000,000}$
(O) $\sqrt{98}$	(E) $3\sqrt{128}$
(S) $\sqrt{48}$	(K) $8\sqrt{27}$
(E) $\sqrt{125}$	(L) $4\sqrt{80}$
(A) $\sqrt{20}$	(H) $-3\sqrt{54}$
(S) $\sqrt{72}$	(A) $-7\sqrt{40}$
(Y) $\sqrt{63} = \sqrt{9 \cdot 7} = 3\sqrt{7}$	(B) $-8\sqrt{121}$
(E) $\sqrt{144}$	(S) $2\sqrt{500} \quad 2\sqrt{5 \cdot 100} = 2 \cdot 10\sqrt{5} = 20\sqrt{5}$
(W) $\sqrt{32}$	(T) $-4\sqrt{24}$
(D) $\sqrt{75}$	(Z) $3\sqrt{175}$
(A) $\sqrt{200}$	(C) $5\sqrt{108}$

Do not worry about the puzzle.